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REMARKS

Claims 1-8 are pending. Claim 1 was amended to correct antecedent basis. Dependent claim 3 was amended to be consistent with base claim 1. Applicant thanks the Examiner for correcting the misnumbered claims under 37 CFR § 1.126.

I. Corresponding English-language Version of Cited Reference

Attached, for the Examiner's information, please find an English-language equivalent of WO 93/24324 - Canadian Publication No. 2,136,746 A1 and a Form PTO-1449 (Attachment II). Applicant kindly requests the Examiner indicate on the enclosed form that he considered the Canadian reference. It is respectfully submitted that no fee is due to have this Canadian reference considered since it merely is an English-language version of a reference already of record. Moreover, the Canadian reference was first obtained after the date of the present Final Office Action. It is additionally presented that this reference was not cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned, this reference was not known to any individual designated by 37 CFR § 1.56(c) more than three months prior to the filing of this paper. However, if a fee is required to have this reference considered please charge Deposit Account No. 19-4375.

II. Claims 1 and 3

Claims 1 and 3 stand rejected under 35 USC § 103(a) as being unpatentable over Admitted Prior Art in view of Aoki et al. (U.S. Patent No. 4,007,078) and Ichikawa et al. (U.S. Patent No. 4,994,130), as carried forward from paragraph 8 of the Office Action of December 11, 2000. Applicant thanks the Examiner for clarifying at page 5 of the Office Action that neither Aoki et al. nor Ichikawa et al. are used to modify the other, but rather both references are used to further teach upon the admitted prior art. It is understood that by "Admitted Prior Art", the Office Action is specifically referring to WO 93/24324, EP 0 067 060 A1 and Smith et al. (U.S. Patent No. 5,407,702) as identified in the background section of the present specification.

The Office Action of December 11, 2001 states (Page 3, lines 15-20):

“Applicant’s contribution is understood to be defined as forming a plastic strip in a continuous manner, whereby the strip is lead away from extrusion process by an ‘open contact roll’ to a haul off roll or the like as to not initiate contact with substrate until a strip casting process is monitored and plastic strip is formed with the desired characteristics (e.g. color, thickness, tension). Bonding is then initiated by closing the contact roll, thereby breaking strip [sic] from haul off roll and pressing onto substrate.”

It is respectfully presented that this characterization is incomplete. In fact, process claim 1 and apparatus claim 3 require the contact roll to be moveable, such that the contact roll may be transformed from a first or “opened” position to a second or “closed” position (Claim 1, stages (iii) and (v), respectively). It is the motion of the contact roll which permits the continuous formation of the plastic strip. Prior to stage (v) the contact roll is in the open position, which directs the cooled plastic strip to the winder, indicated at 7. At stage (v), the contact roll is closed, causing the plastic strip to contact the substrate, also the plastic strip is cut and removed from the winder.

WO ‘324, presented as CA ‘746, is provided as an example of conventional film-laminating. Although therein, the plastic film is first subjected to chill rolls, as required by the present claims, no moveable contact roll and separate winder are so described. Moreover, the process described therein includes additives, which contribute to undesirable factors, which are recited on page 1 of the present specification.

As also described on page 1 of the present specification, the disclosure of EP ‘060 actually “teaches away” from the presently claimed invention. Specifically, on page 2, beginning at line 10, EP ‘060 describes the process as applying the plastic in a molten state to the substrate “*without forming into an independent film*” (emphasis added), and describes the advantages resulting therefrom.

The final reference of “Admitted Prior Art” is Smith et al. As noted at lines 11-15 of page 2 of the present specification, Smith et al. discloses that the requirement of additives can be

eliminated by heating the plastic to a temperature between about 120° to 180°C, *without cooling*,
in contrast to the presently claimed invention.

A. The addition of the teachings of Aoki et al. and Ichikawa et al. fail to provide disclosures of the moveable contact roll, as required by the present claims.

1. Aoki et al.

It is respectfully presented that Aoki et al. is not directed to coating a metallic strip-shaped substrate with a plastic. Thus, there is no motivation to combine Aoki et al. with the primary references. In any event, the structure of Aoki et al. which most closely resembles the moveable contact roll as presently claimed is the switching mechanism E. Aoki et al. also discloses a heat-cutting device I (Fig. 5), which permits the shifting of strip B' from a first passage X to a second passage Y of switching mechanism E.

The Office Action asserts (at the paragraph bridging pages 5 and 6)

“it would have been readily appreciated by one mechanically skilled in the art based on the switching mechanism of Aoki et al. (Element E) as means to lead the plastic strip away from further processing in an open position and then to lead the plastic strip to further processing in a closed position (Aoki et al., Column 4, line 47, Column 5, line 7), to provide for opening and closing a press laminating roll when laminating a plastic film to a metal substrate.”

However, Element E is a diverting device provided in addition to the assembly line. A hindsight combination of Aoki et al., and what the Office Action asserts as a metal substrate coating device having press rolls would still employ Element E to divert unstable film, upstream of the press rolls, and not pass the unstable film between the press rolls and substrate.

In contrast, the rolls of the present invention are themselves the diverting device. The present invention passes the unstable film through its device (with the rolls in an open position) rather than diverting it upstream of its device. This is clear from present claim 1 (iii) which recites:

“leading away the plastic strip between an opened contact roll and the substrate”.

The present invention passes both the stable and unstable film between the processing equipment (roller and substrate) surfaces. Aoki et al. would not permit this step of present claim 1 (iii)

because Aoki et al. requires diverting its “defective” film upstream of processing equipment.

Aoki et al., col. 1, lines 53-57, states “To avoid such waste of material, it is necessary not to feed such a defective film strip to such [bag making or packaging] machine until the film strip being extruded from the extruder head is formed to have a predetermined regular or uniform thickness and breadth.”

Thus, Aoki et al. diverts defective film upstream of processing equipment. In contrast, the present invention passes defective film through processing equipment as forbidden by Aoki et al.

Thus, the combination of the primary references with Aoki et al. fails to teach or suggest the present invention.

2. Ichikawa et al.

Ichikawa et al., even when combined with the four documents above, does not teach each element of the present claims. Applicant agrees that Ichikawa et al. teaches using a haul off roll to separate the extrusion step and hot press bonding, but no device for doing so is described (column 3, lines 48-55).

As in the case of Aoki et al., there is no teaching to pass the unstable film between the open press roller and substrate. Indeed, the Office Action’s reliance on Ichikawa et al., col. 3, lines 48-55, is misplaced. This passage discloses to employ a haul off roll and subsequently to unwind from the same haul off roll to feed the hot press binding rollers. Note, Ichikawa et al., col. 3, lines 56-60, states “The solid sheet wound up on a roll is usually stored at room temperature. However, by heating the solid sheet to a temperature from 40 to 80°C immediately prior to feeding it to the hot press bonding rollers, it is possible to impart a contraction strain to the solid resin sheet” Thus, it is not obvious to start-up “on the fly” based on this disclosure of Ichikawa et al. because this and other advantages would be eliminated.

Moreover, it is respectfully submitted that Ichikawa et al. does not provide any reasonably enabling teaching which would guide one of ordinary skill to construct the moveable contact roll as claimed herein. It is respectfully presented that any “gap filling”, i.e. handling the coating material by leading away the plastic strip between an opened contact roll and the substrate until the plastic strip production is underway and stabilized; or selecting a moveable contact roll which presses the plastic strip onto the substrate, could result only from hindsight.

When there are a variety of devices for achieving a result, one could pick and choose any number of elements and combine them, but without guidance to do so from the references themselves, choosing any specific combination of elements would be an *ex post facto* analysis using impermissible hindsight afforded by applicant's disclosure (See MPEP § 2143).

II. Claims 2, 4-6 and 8

Claims 2, 4-6 and 8 stand rejected under 35 USC § 103(a) as being unpatentable over “Admitted Prior Art” in view of Aoki et al. and Ichikawa et al. in further view of Smith et al., as carried forward from paragraph 9 of the Office Action of December 11, 2000.

In light of the arguments presented above, it is respectfully presented that because Smith et al. does not provide for the deficiencies of “Admitted Prior Art”, Aoki et al. and Ichikawa et al., elucidated with reference to claims 1 and 3, the addition of the teachings of Smith et al. cannot render claims 2, 4-6 and 8 obvious.

III. Claim 7

Claim 7 stands rejected under 35 USC § 103(a) as being unpatentable over “Admitted Prior Art” in view of Aoki et al. and Ichikawa et al., in further view of Nishida et al. While Applicant agrees that Nishida et al. teaches a roll with cooling water flowing therein (column 14, lines 9-15), Nishida et al. also fails to provide for the deficiencies of “Admitted Prior Art”, Aoki

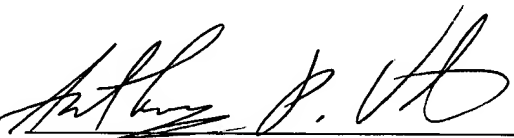
et al. and Ichikawa et al., elucidated with reference to claims 1 and 3. Therefore it is respectfully presented that the incorporation of the disclosure of Nishida et al. cannot render claim 7 obvious.

IV. Conclusion

Entrance of the above-amendments, reconsideration and passage of this application to issue are respectfully requested.

Respectfully submitted,

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ATTACHMENT I

1. (Twice Amended) A method [Method] for strip-coating a metallic strip-shaped substrate with a strip of plastic comprising the successive stages of:

- (i) plastic strip production comprising in-situ casting of a plastic strip;
 - (ii) leading the plastic strip around a cooling roll;
 - (iii) leading away the plastic strip between an opened contact roll and the substrate until the plastic strip production is underway and stabilised;
 - (iv) bringing the plastic strip and the substrate up to speed and heating the substrate to a temperature at or above the softening temperature of the part of the plastic strip facing the substrate;
 - (v) pressing the plastic strip onto the substrate by closing the contact roll and where applicable breaking off the plastic strip and stopping [it] the plastic strip being led away, while the substrate and the cooling roll are connected by the plastic strip; and
 - (vi) coating the substrate with the plastic strip;
- while performing on the plastic strip as [it] the plastic strip travels between cooling roll and contact roll at least one of monitoring [its] thickness of the plastic strip, monitoring [its] colour of the plastic strip, monitoring strip tension and trimming [its] width of the plastic strip.

3. (Amended) An apparatus [Apparatus] for strip-coating a metallic strip-shaped substrate with a strip of plastic in accordance with claim 1, comprising in combination:

[-] means of conveying the metal substrate;

[-] a contact roll for pressing the plastic strip onto the substrate;

[-] means of producing the plastic strip comprising means of casting for casting the plastic;

[-] a cooling roll for the formation of a plastic strip;

[-] means of feeding and guiding for bringing the plastic strip to the substrate via the contact roll and for leading away the plastic strip between an open said contact roll and the substrate until the plastic strip production is underway and stabilised;

wherein the contact roll is moveable to a first position apart from the substrate wherein [it] the contact roll is suitably arranged to co-operate with a means of conveying off the plastic strip and to a second position relative to the substrate wherein the contact roll [it] is suitable to press the plastic strip onto the substrate.

ATTACHMENT II
